

Draft Risk Management Guidance for the Permitting of New Stationary Diesel-Fueled Engines

California Environmental Protection Agency



Air Resources Board

Permitting Guidance

- First DRAFT - February 9, 2000
 - ◆ Input from the air districts, subcommittees members, and the public
- Second DRAFT - July 13, 2000
- Continue our work with all concerned individuals or groups in the development of permitting guidance

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Purpose of Guidance

- Provide districts with diesel-specific permitting guidance for new stationary diesel-fueled engines
- The Guidance does not limit a district's ability to differ from our suggested approach

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Engines Addressed by Guidance

- Guidance only addresses the permitting of new stationary diesel-fueled engines.
- The Guidance does not specifically address
 - ♦ existing engines
 - ♦ modified engines
 - ♦ mobile, portable, military TSE, agricultural engines or federally exempt nonroad engines

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Initial Permitting Approach

- Engine categories and hours of operation
 - ♦ Engines ≤ 50 hp
 - ♦ No minimum hours of operation
 - ♦ Engines > 50 hp
 - ♦ Four different allowable hours of operation
- Minimum Technology Requirements
 - ♦ Engines ≤ 50 hp, CARB diesel, no add-on controls
 - ♦ Engines > 50 hp, CARB diesel, add-on control dependent on hours of operation

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Minimum Technology Requirements February 2000

Engine Category	Annual Hours of Operation	Tier	Minimum Technology Requirements			Additional Requirements	
			New Engine PM Emission Certification Levels (g/bhp-hr)	Fuel Technology requirements	Add-On Control	HRA requirement	SF Report
Engines ≤ 50 hp	All	1	0.2-0.4	CARB Diesel or equivalent	No	No	No
Engines > 50 hp	≤ 50 hours	1	0.1	CARB Diesel or equivalent	No	No	No
	> 50 hours and ≤ 100 hours	1	0.1	CARB Diesel or equivalent	DOC or equivalent	No	No
	> 100 hours and ≤ 200 hours	1	0.1	CARB Diesel or equivalent	DPF or equivalent	No	No
	> 200 hours	2	0.1	CARB Diesel or equivalent	DPF or equivalent	Yes	If HRA shows risk $> 10^{-6}/3500$

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Proposed Changes to Guidance

- Add performance standard option
- Change hours of operation cutoff levels
- Require catalyst-based DPF or equivalent on all engines > 50 hp
- Require very low-sulfur diesel fuel (< 15 ppm) or equivalent

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Minimum Technology Requirements and Performance Standards July 13, 2000

Engine Category	Annual Hours of Operation	Group	Performance Standard (g/bhp-hr)	Minimum Technology Requirements			Additional Requirements	
				New Engine PM Emission Certification Levels (g/bhp-hr)	Fuel Technology Requirements	Add-On Control	HRA Requirement	SF Report
Engines ≤ 50 hp	All	1	0.2	0.2	CARB Diesel or equivalent	No	No	No
Engines > 50 hp	≤ 400 hours	1	0.02	0.1	Very low-sulfur CARB Diesel or equivalent	Catalyst-based DPF or equivalent	No	No
	> 400 hours	2	0.02	0.1	Very low-sulfur CARB Diesel or equivalent	Catalyst-based DPF or equivalent	Yes	If HRA shows risk > 10million

1. ISO 8178 test procedure with California Exhaust Emission Standards and Test Procedures for New 1996 and Later Off-Road Compression-Ignition Engines, May 12, 1993.
2. CARB diesel formulations with sulfur content less than or equal to 15 ppm by weight.
HRA - Health Risk Assessment SF - Specific Findings DOC - Diesel Oxidation Catalyst DPF - Diesel Particulate Filter

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Highlights of Guidance

- Specific Findings Report requirements
 - ✦ Site specific HRA
 - ✦ A technical and economic feasibility evaluation
 - cleaner fuels
 - design considerations
 - emission reduction options
 - ✦ Discussion of uncertainty, benefits of project, facility risk relative to ambient concentrations, existing federal, state, and local mandates, and multi-media impacts
 - ✦ Public review and comment on the project

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Highlights of Guidance

- Adjustments to risk assessment methodology
 - ◆ Appendix IV
 - ◆ Supplemental information
 - ◆ Site-specific exposure adjustments

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Next Steps

- July 13, 2000 Draft Risk Management Guidance
 - ◆ 30-day public comment period
- Draft to Advisory Committee August 11, 2000
 - ◆ Comments from committee members
- Proposed draft to Board in September 28, 2000

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